

Attenuation and Calibration Systems and Methods for Use With a Laser Detector in an Optical Communication System

Abstract of the Disclosure

Systems and methods for use with an optical communication beam are disclosed. The system allows the beam of light to operate at an adequate power level that provides a robust optical link while minimizing any safety risk to humans. The system calibrates and controls the gain for an avalanche photodiode detector (APD). A detector circuit is used to calibrate the APD. Once calibrated, the detector circuit further provides an electrical bias to the APD to process or condition the electrical signal to produce a detector output. The systems and methods disclosed herein attenuate the power level of an incoming communication beam to prevent oversaturation of an APD. The system further provides an alignment signal, which is effective over a wide dynamic range of incoming power levels.

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